

**AMENDMENTS TO THE CLAIMS**

Please **AMEND** claims 1-18, 21-24, 26, 27, 29-32, 34, 36 and 37, as shown below.

The following is a complete list of all claims in this application.

1. (Currently Amended) A liquid crystal display (LCD) device, comprising:
  - a control unit ~~for~~ receiving a an RGB picture signal and a first timing signal from the external and outputting the RGB picture signal, a second timing signal for displaying the RGB picture signal on a screen, a backlight control signal, and a bias voltage signal;
  - a first direct current power conversion unit responsive to an ON state of the backlight control signal for applying a backlight driving voltage;
  - a backlight unit ~~for~~ outputting light according to the application of the backlight driving voltage;
  - a gate driver ~~for~~ outputting a scan signal;
  - a source driver ~~for~~ outputting a picture signal; and
  - an LCD panel including:
    - a plurality of gate ~~line~~ for lines transmitting the scan signal;
    - a plurality of source ~~line~~ lines intersecting the plurality of gate lines ~~for~~ and transmitting the image signal;
    - a plurality of switching ~~element~~ elements connected to the ~~plurality of gate line~~ lines and the source ~~line~~ lines, respectively; and

a plurality of picture ~~electrode~~ electrodes connected to the ~~plurality of switching element~~ elements for ~~responding operation of the plurality of switching element~~, and arranged in a matrix type; and

a common electrode line receiving the bias voltage at an initial operation of the LCD;

~~wherein fast transition into a bend state is induced by an application of the bias voltage at initial operation.~~

2. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 1, wherein the control unit comprises;

a timing controller ~~for~~ outputting a first switching signal and the backlight control signal of OFF state at the initial operation and outputting a second switching signal and the backlight control signal of ON state after a predetermined period elapses;

a second direct current power conversion unit ~~for~~ outputting a ~~predetermined~~ the bias voltage; and

a switching unit ~~for~~ outputting the bias voltage to the common electrode line as the bias ~~signal~~ when the first switching signal is applied by the timing controller and the common electrode voltage to the common electrode line as ~~bias signal~~ when the second switching signal is applied by the timing controller.

3. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 2, wherein the timing controller applies the backlight control signal of OFF state to the second direct current power conversion unit at the initial operation, and applies backlight control signal of ON state to

the first direct current power conversion unit at the point that transition into bend state of liquid crystal arranged in the LCD panel is completed when a predetermined period elapses.

4. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 2, wherein the bias voltage is ~~a voltage of less level~~ than the common electrode voltage.

5. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim ~~4~~ 3, wherein the bias voltage is one of -10 volt and -20 volt

6. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 2, wherein the timing controller outputs an alternatively selected one of the first switching signal and the second switching signal when the backlight control signal of OFF state is applied.

7. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 1, wherein the control unit comprises:

a switching unit ~~for~~ performing a first switching of at least one of a gate voltage for the scan signal, a data voltage for the picture signal, and a driving voltage for the backlight and performing a second switching of at least one of a bias voltage and a common electrode voltage for outputting the bias voltage; and

a timing controller ~~for~~ outputting a first switching signal to control the first switching to the switching unit and outputting a second switching signal to control the second switching to the switching unit so that fast transition into bend state of the liquid crystal arranged in the LCD panel is accomplished.

8. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 7, further comprises a second direct current power conversion unit for outputting the bias voltage to the switching unit.

9. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 8, wherein the switching unit comprises a first switching unit for ON/OFF switching the gate voltage, the data voltage, and the backlight driving voltage according to the first switching signal; and a second switching unit for ON/OFF switching the bias voltage and the common electrode voltage according to the second switching signal.

10. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 9, wherein the timing controller; controls output of the gate voltage, the data voltage, the bias voltage, and the common electrode voltage at the initial operation, ~~when a first period elapses~~, interrupts output of the gate voltage, the data voltage, and the common electrode voltage and controls a selection of the bias voltage when a first period elapses, ~~when a second period elapses~~, controls a selection of the common electrode voltage when a second period elapses, and ~~when a third period elapses~~, controls output of the gate voltage, the data voltage, and the backlight driving voltage and controls a selection of the common electrode voltage when a third period elapses.

11. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 10, wherein the timing controller controls an alternative selection of a high voltage and a low voltage when the selection of the bias voltage is controlled.

12. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 8, wherein the switching unit comprises a first switching unit for ON/OFF switching the backlight driving voltage according to the switching signal; and

a second switching unit for ON/OFF switching the bias voltage and the common electrode voltage according to the switching signal.

13. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 12, wherein the timing controller; controls output of the gate voltage, the data voltage, the bias voltage, and the common electrode voltage at initial operation, ~~when a first period elapses~~, controls the data voltage to be outputted with a level equivalent to the level of the common electrode voltage when a first period elapses, ~~when a second period elapses~~, controls the common electrode voltage to be replaced with the bias voltage when a second period elapses, ~~when a third period elapses~~, controls the bias voltage to be replaced with the common electrode voltage when a third period elapses, and ~~when a fourth period elapses~~, controls output of the backlight driving voltage when a fourth period elapses.

14. (Currently Amended) The ~~liquid crystal display~~ LCD device of claim 13, wherein the timing controller repeats several times the switching between the bias voltage and the common electrode voltage.

15. (Currently Amended) A driving apparatus of a liquid crystal display device including a gate driver ~~for~~ outputting scan signals sequentially; a source driver ~~for~~ outputting

picture signals; ~~an~~ a liquid crystal display (LCD) panel including a plurality of gate line ~~for~~ transmitting the scan signals, a plurality of data ~~line~~ lines intersecting the plurality of gate lines ~~for~~ transmitting the picture signals, a plurality of switching ~~element~~ elements formed in regions surrounded by the plurality of gate ~~line~~ lines and data ~~line~~ lines and connected to the plurality of gate ~~line~~ lines and ~~source-line~~ data lines, respectively, and a plurality of picture ~~electrode~~ electrodes connected to the plurality of switching ~~element~~ elements for responding operation of the plurality of switching ~~element~~ elements, arranged in a matrix type; a common electrode receiving a bias voltage at an initial operation of the LCD; and a backlight positioned at a back side of the LCD panel, comprising:

a control unit ~~for~~ receiving a RGB picture signal and a first timing signal from ~~the~~ an external device and outputting the RGB picture signal, a second timing signal for displaying the RGB picture signal on a screen, a backlight control signal; and a the bias voltage signal; and

a first direct current power conversion unit responsive to an ON state of the backlight control signal for applying a backlight driving voltage to the backlight.

16. (Currently Amended) The driving apparatus of claim 15, wherein the control unit comprises;

a timing controller ~~for~~ outputting a first switching signal and the backlight control signal of OFF state at an initial operation and outputting a second switching signal and the backlight control signal of ON state after a predetermined period elapses;

a second direct current power conversion unit ~~for~~ outputting ~~a predetermined~~ the bias voltage; and

a switching unit for outputting the bias voltage as ~~the bias signal~~ to the common electrode when the first switching signal is applied by the timing controller and the common electrode voltage as ~~bias signal~~ to the common electrode when the second switching signal is applied by the timing controller.

17. (Currently Amended) The driving apparatus of claim 16, wherein the timing controller applies the backlight control signal of OFF state to the second direct current power conversion unit at initial operation, and applies the backlight control signal of ON state to the first direct current power conversion unit at the point that transition into bend state of liquid crystal arranged in the LCD panel is completed when a predetermined period elapses.

18. (Currently Amended) The driving apparatus of claim 16, wherein the bias voltage is ~~a voltage of less level~~ than the common electrode voltage.

19. (Original) The driving apparatus of claim 17, wherein the bias voltage is one of -10 volt and -20 volt.

20. (Original) The driving apparatus of claim 16, wherein the timing controller outputs an alternatively selected one of the first switching signal and the second switching signal when the backlight control signal of OFF state is applied.

21. (Currently Amended) The driving apparatus of claim 15, wherein the control unit comprises:

a switching unit for performing a first switching of at least one of a gate voltage for the scan signal, a data voltage for the picture signal, and a driving voltage for the backlight and performing a second switching of at least one of a bias voltage and a common electrode voltage; and

a timing controller for outputting a first switching signal to control the first switching to control the switching unit and outputting a second switching signal to control the second switching to the switching unit so that fast transition into bend state of the liquid crystal arranged in the LCD panel is accomplished.

22. (Currently Amended) The driving apparatus of claim ~~15~~ 16, further comprises a second direct current power conversion unit for outputting the bias voltage to the switching unit.

23. (Currently Amended) The driving apparatus of claim 22, wherein the switching unit comprises:

a first switching unit for ON/OFF switching the gate voltage, the data voltage, and the backlight driving voltage according to the first switching signal; and

a second switching unit for ON/OFF switching the bias voltage and the common electrode voltage according to the second switching signal.

24. (Currently Amended) The driving apparatus of claim 23, wherein the timing controller, controls output of the gate voltage, the data voltage, the bias voltage, and the common electrode voltage at initial operation, ~~when a first period elapses,~~ interrupts output of the gate voltage, the data voltage, and the common electrode voltage and controls a selection of the bias



voltage when a first period elapses, ~~when a second period elapses~~, controls a selection of the common electrode voltage when a second period elapses, and ~~when a third period elapses~~, controls output of the gate voltage, the data voltage, and the backlight driving voltage and controls a selection of the common electrode voltage when a third period elapses.

25. (Original) The driving apparatus of claim 24, wherein the timing controller controls an alternative selection of a high voltage and a low voltage when the selection of the bias voltage is controlled.

26. (Currently Amended) The driving apparatus of claim 22, wherein the switching unit comprises;

a first switching unit for ON/OFF switching the backlight driving voltage according to the switching signal; and

a second switching unit for ON/OFF switching the bias voltage and the common electrode voltage according to the switching signal.

27. (Currently Amended) The liquid crystal display device of claim 26, wherein the timing controller; controls output of the gate voltage, the data voltage, the bias voltage, and the common electrode voltage at initial operation, ~~when a first period elapses~~, controls the data voltage to be outputted with a level equivalent to the level of the common electrode voltage when a first period elapses, ~~when a second period elapses~~, controls the common electrode voltage to be replaced with the bias voltage when a second period elapses, ~~when a third period elapses~~, controls the bias voltage to be replaced with the common electrode voltage when a third

period elapses, and when a fourth period elapses, controls output of the backlight driving voltage when a fourth period elapses.

28. (Original) The driving apparatus of claim 27, wherein the timing controller repeats several times the switching between the bias voltage and the common electrode voltage.

29. (Currently Amended) A driving method of a liquid crystal display (LCD) device including a LCD module including a LCD panel, a gate driver, and a data driver; and a backlight positioned at a back side of the LCD panel, comprising steps of:

(a) ~~a step of~~ inducing transition into bend state by a high voltage by applying a data voltage and a gate voltage not selected at initial operation of the liquid crystal display device to the LCD panel and applying an external bias voltage separately to a common electrode of the LCD panel;

(b) ~~a step of~~ interrupting the external bias voltage when a predetermined time elapses and applying a common electrode voltage to the common electrode LCD panel; and

(c) ~~a step of~~ applying a predetermined backlight driving voltage to the backlight at the same time of applying the common electrode voltage to the common electrode LCD panel.

30. (Currently Amended) The driving method of claim 29, wherein the step (a) further comprises a step of selecting alternatively the external bias voltage and the common electrode voltage several times and applying a selected one of the external bias voltage and the common electrode voltage to the common electrode LCD panel.

31. (Currently Amended) The driving method of claim 29, wherein ~~the point that the~~ predetermined time elapses ~~in the step (b) is the point that~~ when transition into a bend state is completed.

32. (Currently Amended) The driving method of claim 29, wherein the step (a) includes applying the backlight driving voltage of OFF state to the backlight upon applying the external bias voltage separately to the common electrode LCD panel.

33. (Original) The driving method of claim 30, wherein the step (a) includes applying the backlight driving voltage of OFF state to the backlight.

34. (Currently Amended) A driving method of a liquid crystal display (LCD) device including a an LCD module including a an LCD panel, a gate driver, and a data driver, and a backlight positioned at a back side of the LCD panel, comprising steps of:

(a) ~~a step of~~ controlling a gate voltage and a data voltage to be applied to the LCD panel at an initial operation of the liquid crystal display device and controlling output of an external bias voltage and a common electrode voltage;

(b) ~~a step of~~ preventing the gate voltage, the data voltage, and the common electrode voltage from being applied to the LCD panel, and selecting the external bias voltage to be applied to a common electrode line of the LCD panel;

(c) ~~a step of~~ applying the common electrode voltage replacing the external bias voltage to the common electrode LCD panel;

(d) ~~a step of~~, when a predetermined period elapses, interrupting the application of the external bias voltage, applying the gate voltage and the data voltage to the LCD panel, and applying the common electrode voltage to a the common electrode line ~~of the LCD panel~~; and

(e) ~~a step of~~ applying a predetermined backlight driving voltage to the backlight at the same time of applying the common electrode voltage to the common electrode line.

35. (Original) The driving method of claim 34, wherein the step (b) includes applying alternatively a high voltage and a low voltage when the external bias voltage is applied.

36. (Currently Amended) A driving method of a liquid crystal display (LCD) device including a an LCD module including a an LCD panel, a gate driver, and a data driver; and a backlight positioned at a back side of the LCD panel, comprising steps of:

(a) ~~a step of~~ controlling a gate voltage and a data voltage to be applied to the LCD panel at an initial operation of the ~~liquid crystal display~~ LCD device and controlling output of an external bias voltage and a common electrode voltage;

(b) ~~a step of~~ controlling the external bias voltage and the common electrode voltage to be alternatively applied to a common electrode line the LCD panel several times;

(c) ~~a step of~~ applying the common electrode voltage replacing the external bias voltage to the common electrode line ~~LCD panel~~;

(d) ~~a step of~~ maintaining output of the common electrode voltage and controlling output of the backlight driving voltage;

- (e) ~~a step of~~, when a predetermined period elapses, interrupting the application of the external bias voltage, applying the gate voltage and the data voltage to the LCD panel, and applying the common electrode voltage to a the common electrode line of the LCD panel; and
- (f) ~~a step of~~ applying a predetermined backlight driving voltage to the backlight at the same time of applying the common electrode voltage to the common electrode line.

37. (Currently Amended) The driving method of claim 36, wherein the step (b) includes controlling the data voltage to be applied with a level equivalent to the level of the common electrode voltage.

38. (Original) The driving method of claim 36, wherein the data voltage is an alternate voltage.